Creativity:
What Are We Talking About?

MELODY MILBRANDT AND LANNY MILBRANDT

In the United States, our collective definitions, perceptions, and myths about creativity have, at best, produced an uneven understanding of what it means to be a creative person. A primary goal of this article is to help clarify meanings associated with the broad term creativity and identify some observable processes associated with it. Part of the problem in our current educational context is that the term creativity is so ill-defined, ambiguous, and fuzzy so that no common agreement exists on its meaning. Creativity remains an elusive concept where discussion, definitions, procedures, and expressions of the term may be regarded superficially unless broad understandings about creativity can be broken down to manageable and assessable specific operations.

Depending on the context, creativity may be presented as the brilliant spark of inspiration residing in the talented genius, an essential ingredient of American resourcefulness and inventiveness, or a deviant personality trait manifest in unstable behavior with little social value. Our country's Constitution and protection of personal freedom laid the foundation for creative endeavors, yet one has only to watch the yearly extravaganza of Super Bowl commercials to know that the most popular public connotation and focus of creativity in this country has shifted from the expectation of thrilling innovative breakthroughs in scientific or artistic thought to the frivolity and innovation of rampant commercialism. For many in Western cultures, novelty often is sought through goods and experiences that can be purchased in marketplaces of every sort, rather than through internal thinking processes and application of creative effort. There is little evidence in the current educational system to suggest that schools teach students how to selectively discuss or use creative thinking processes for personal or collective benefit or openly support students' sustained creative involvement.

As a result of the lack of understanding of creativity and a general agreement on meaning, research in art education has generally been dismissive of the talented genius, an essential ingredient of American resourcefulness and inventiveness, or a deviant personality trait manifest in unstable behavior with little social value. Our country's Constitution and protection of personal freedom laid the foundation for creative endeavors, yet one has only to watch the yearly extravaganza of Super Bowl commercials to know that the most popular public connotation and focus of creativity in this country has shifted from the expectation of thrilling innovative breakthroughs in scientific or artistic thought to the frivolity and innovation of rampant commercialism. For many in Western cultures, novelty often is sought through goods and experiences that can be purchased in marketplaces of every sort, rather than through internal thinking processes and application of creative effort. There is little evidence in the current educational system to suggest that schools teach students how to selectively discuss or use creative thinking processes for personal or collective benefit or openly support students' sustained creative involvement.

As Zimmerman (2009) notes:

Researchers and practitioners need to conceive of creativity as multidimensional with consideration of how cognitive complexity, affective intensity, technical skills, and interest and motivation all play major roles. (p. 394)

Talking about creativity or making judgments about creative products might be more fruitful if we understood and used creative theories as we understand and use aesthetic theories. Art educators often have discussed merits of art based on understanding of traditional aesthetic views or artistic intentions of mimetic, expressive, instrumentalist, or formalist aesthetics. Aesthetic theories did not develop as clear independent theories simultaneously. Numerous philosophers and aestheticians developed their aesthetic theories independently or leaving a gap in the preparation of future citizens and leaders. In his forecast of our collective future, Daniel Pink (2006) speculates, "We’ve progressed from a society of farmers to a society of factory workers to a society of knowledge workers. And now we're progressing yet again to a society of creators and empathizers, of pattern recognizers, and meaning makers" (p. 58). Without the practice and aptitude for engaging in creative thinking, our citizenry may not be prepared to meet a world in continual flux (Liu & Noppe-Brandon, 2009).

Although it is impossible to consider all definitions or aspects of creativity, it is important to acknowledge the complexity of multiple definitions or theories to begin to construct a useful understanding. Some creative definitions and theories contradict or negate one another while others easily co-exist or overlap in practice.

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in response to each other with some redundancy and often with controversy. Eventually history gave us a vantage point for clustering these writings into similar conceptual content or categories. In *Becoming Human through Art*, Feldman (1970) offered a model of art criticism utilizing traditional aesthetic theories that became widely used with the advent of Discipline-Based Art Education. New frameworks have emerged for addressing postmodern or contemporary art in the art classroom, as those suggested by Gude (2004), but the majority of art educators continue to blend their understanding of traditional aesthetic theories and production alongside contemporary artistic practice.

A similar understanding and clustering of the numerous definitions of creativity might offer a means for art educators to consider definitions of creativity from a variety of diverse, observable viewpoints and purposes, and provide a range of opportunities for engaging students in creative thought in more overt and coherent ways. In looking at a wide range of traditional research about creativity, categories of Domain-Changing, Self-Expression/Search for Meaning, and Creative Problem Solving may offer a foundation and initial framework for discussing and facilitating creative activities in art classrooms.

**Domain-Changing Creativity**

In the systems model developed by Mihaly Csikszentmihalyi (1996), creativity is defined as "any act, idea, or product that changes an existing domain, or that transforms an existing domain into a new one" (p. 27). Foundational to Csikszentmihalyi's theories of creativity impacting a domain is the assumption that experts or gatekeepers will determine whether efforts to change or move the field are successful. According to Csikszentmihalyi, a domain cannot be changed without the implicit or explicit consent of the field, as defined by the gatekeepers, experts, critics, and others who have capacity to accept or reject the value of a creative product in a domain in which they have expertise.

Stein (1984) similarly presents a common view of creativity from the domain of psychology. He suggests that, "Creativity is a process that results in novelty which is accepted as useful, tenable, or satisfying by a significant group of others at the same point in time" (p. 1). The definition of a creative person, according to Stein, is someone whose thoughts or actions change a domain or establish a new domain. Based on the literal reading of these Western domain theories of creativity, children and youth would not be considered creative because they will not be likely to nor expected to change any domain or discipline such as art, math, biology, etc. In the history of art, artists such as Picasso, Kiefer, and Kahlo would be viewed as domain changers and according to Stein (1984) and Csikszentmihalyi (1996), would earn the title of 'creative individual.'

While the domain-changer definition of creativity may seem highly constrained, it necessitates in-depth understandings and skills within a field in order for creative acts or products to be recognized. Many art teachers subscribe (consciously or not) to the domain criteria for creativity when they plan a scope and sequence in curriculum that relies on acquisition of basic technical skills and concepts that must be attained and demonstrated prior to execution of more.

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In the tradition of Surrealist painter Rene Magritte, Izabelle Garcia's Self Portrait positions realistic images in unexpected relationships, metaphorically challenging the viewer's perspective of reality.

expressive or open-ended assignments. In traditional societies, artists often replicated imagery and symbols to make rituals and ceremonies special. In this context, the instrumental value of art lies in its ability to solidify and enhance the social cohesion (Anderson & Milbrandt, 2005; Dissanayake, 1988), and the creative genius of the artist lies in her or his ability to master materials and techniques important for satisfying social and cultural needs. Often in an art classroom teachers give assignments that require students to replicate technical processes that take place in an artist's studio with the expectation of a solution that is plausible and satisfying for the problem and appropriate to the development, artistic tradition, and social context of a learner.

Bruner's (1960) educational theories suggest that students of a particular discipline be engaged in discovery learning through involvement in 'real world' processes that are parallel to creative successful models in a field. His problem-solving approach within a discipline is similar to much traditional curriculum development in art education, including DBAE, which focuses teaching practice on four disciplines of art professionals (art historians, art critics, aestheticians, and studio artists). Although participation in artistic processes and problem solving by P-12 students may not result in transforming or extending the body of knowledge in the adult level domain of art, it is developmentally and perhaps socially valuable for students to engage in artistic thinking and learning within the context of artistic traditions. Dewey (1934) observes, "New ideas come leisurely yet promptly to consciousness only when work has previously been done in forming the right doors by which they may gain entrance. Subconscious maturation precedes creative production in every line of human endeavor" (p. 37). Parnes (1988) observes that one of the necessary ingredients for creative expression is a fund of knowledge and experiences related to the problem.

As Hetland, Winner, Veenema, and Sheridan (2007) suggest, students engage in activities that teach them about an artist's world; students see connections between their artwork and work by artists in the past. Looking at artwork by other artists helps students solve their own visual problems. Relevance of the Domain-Changing definition of creativity for art education lies in developing creative artistic habits of mind, acquiring skills and knowledge of the content area, and producing a product that is novel and recognized as significant in the context of students and classrooms. Art educators need to consider the degree to which their understanding of creativity is domain dependent and how rethinking domain-change as classroom-change can guide their teaching, curriculum, and evaluation.

Self Expression and the Search for Meaning

Anthropologist Dissanayake's 1988 book, What is Art For?, made the electrifying claim that creativity and art are biological necessities for homo sapiens. She suggests that art and other creative enterprises have survival value; otherwise we would not have continued to create artworks. This anthropological point of view is only one good reason to believe that all humans have some creative capacity and that creativity is a valuable attribute, because it helps us to adapt to change and celebrate life. Numerous educational philosophers have written about creativity and self-expression in art education, but among the more influential, and often the most misinterpreted, have been Dewey (1934) and Lowenfeld (1947). As a pioneer of progressive education in the early 1900s, Dewey saw the need for centering the child in the educational process and tapping imagination and art as a viable means for transforming society. He views emotional discharge (in art) as a necessary, but not sufficient condition of expression. Burton (2009) observes, "Within Lowenfeld's theory of creative and mental growth not all children and adolescents became professional artists, but they all develop flexible and free minds able to construct and express personal meaning" (p. 335). Much of Lowenfeld's writing suggests the need for children to develop a sense of self-identification through expression of their personal experience, which later translates into an ability to empathize and identify with others (Lowenfeld & Brittain, 1988).

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Although Lowenfeld does not emphasize dialogue in the social construction of learning as does Vygotsky (1962), like Vygotsky, he envisions creative practice as a vehicle for development of autonomous individuals, who are living in the moment, reflecting critically on their own experience, and engaging responsively with others. Rather than self-expression as a solitary act, Lowenfeld sees relationships to others as central (Burton, 2009). Lowenfeld's process-oriented perspectives of creativity seem to be echoed in a 2005 Rand Corporation Report (McCarty, Ondaatje, Brooks, & Szanto, 2005) that suggests that the visual arts do more than simply embellish an individual’s life experience. According to the report, the arts connect and engage people more deeply in new ways of seeing, which often elicits social bonds and encourages community cohesion. The arts engage students' affective, intuitive, and emotional sides, which Lowenfeld believed were important to balancing the overload of cognitive and intellectual experiences in educational institutions. In a similar educational movement today, supporters of 'whole child' education advocate for educational experiences that engage students through a variety of modalities, learning styles, and possibilities for creative outcomes (Scherer, 2009).

Even a short discussion of self-expression would not be complete without discussing the role of meaning in creative expression. Peter London (1989) suggests that in our efforts to produce art that is highly original, beautiful, and technically proficient, artists may lose their personal relationship with the work. He views creative activity as "inquiry, the expansion of emotional depth and range, the tuning of the spirit, and the quest for meaning" (p. 18). London observes that art may be used as a vehicle for personal transformation by freeing individuals from their secondhand beliefs and conditioned behaviors. While there is not space in this article for an in-depth look at all publications connecting creativity to personal transformation, it is important to note that there has been a sustained interest in the construction of personal meaning as a critical goal of art education in a variety of contexts, as evidenced in the work of numerous art educators such as Anderson and Milbrandt (2005), Carpenter and Taylor (2006), Gnezda (2009), Lowenfeld and Brittain (1988), Sandell (2006), Sullivan (1993), Szekely (1988), and Walker (2001), to name only a few.

In the art classroom the most essential quality of self-expression and the construction of meaning is that students view their processes and/or products as a meaningful representation of their personal experiences. When guiding art students, a teacher may look for evidence of strong internal, personal references, and students' focus on personal experiences rather than established knowledge as indicative of performance that is consonant with self-expressive creativity.
In a summer assignment for her International Baccalaureate high school art teacher Natalie Bandhorst asked her students to do a series of 50 sketchbook drawings of hands or feet. When students returned to school in the fall they were asked to create another drawing using only multiple hands or feet in an interesting and unified composition. Alex Lievens solved the creative challenge by combining his hand drawings into a new piano-like instrument entitled Pihando.

Creative Problem Solving

If multiple possible solutions to a problem are probable then creative problem-solving processes are appropriate. The Creative Problem-Solving Model developed by Parnes (1988) generates multiple solutions that are neither right nor wrong, but may be more or less successful depending on the context and solution criteria. In this model, the process may move in a divergent-convergent cycle of problem and fact-finding, analysis, idea generation, and judgment.

Often a creative problem-solving process involves an initial proactive phase of problem (or opportunity) finding and problem definition. The expectation for multiple solutions in a creative problem-solving process is based on a broad range of alternatives possible, because knowledge or ideas can be re-combined and manipulated multiple times through a problem solver’s use of personal and established knowledge and relevant experience. The structures for creative problem-solving processes determine pathways a problem solver may elect to follow. These structures include many processes or strategies familiar to visual problem solving in the art classroom. Brainstorming (Osborne, 1957), analogical thinking (using analogy and metaphor), transformational thinking (Eberle, 1977), and visualization and forced or remote associations (Roukes, 1982, 1988) are but a few examples of strategies for generating new ideas. Roukes provides a number of additional approaches to stimulating creative ideation in his book, Art Synectics, including a checklist of adaptations such as magnification, reversal, distortion, and metamorphosis, which may be used to push visual solutions in unexpected, less mundane and teacher-anticipated directions.

Creative problem solving offers an opportunity for students to engage in a wide variety of discreet processes that may enhance their potential for more divergent and unusual responses. With the acquisition of a depth and breadth of creative problem-solving strategies, teachers and students could develop a more sophisticated understanding of creative behavior. If teachers and students are cognizant of their own creative thinking strategies, they are more likely to use them as a tool for creative thinking in other contexts beyond the art classroom.

Conclusion

The three broad categories for theories of creativity, (a) Domain-Altering, (b) Self-Expression and Meaning Making, and (c) Creative Problem Solving, are not meant to serve as a model for all creative theories. It is hoped that this clustering might serve to generate further discussion regarding specific definitions of creativity and the implications of those definitions for art teaching and learning. In his well-known open concept of art, Morris Weitz (1959) proposes that art cannot be characterized by a singular definition because creative thought, at the core of artistic pursuit, continues to evolve, reflecting multiple changes and needs of society. As Parsons (2004) notes, much creative work occurs on the borderland of disciplines; in the 21st century discipline borders are permeable and continue to shift. In his 2001 text, Information Arts: Intersection of Arts, Science and Technology, Wilson points to the convergence of artistic and scientific thinking as an emerging approach to innovation. One only has to look at the November 2009 issue of Popular Mechanics to see the integrative relationship of art and science in creative thought. The work of Dean Kamen, inventor of the Segway personal transporter and holder of over 400
while inspiring the creative potential of young inventors (Ward, 2009). Similar visualization and innovative thinking with real-world relevance drives art students to create animations, digital imagery, Web designs, and other product designs. As Liu and Noppe-Brandon (2009) point out, unlocking the power of possibility first requires imagination and "creating an ecosystem where good ideas can emerge from anywhere" (p. 203). Numerous economists, psychologists, sociologists, media experts, artists, and educators are calling across all disciplines and organizations for heightened imagination and a synthesis of complex understandings to construct a more successful and satisfying collective future (Gauntlett, 2007; Liu & Noppe-Brandon, 2009; Perkins, 1992; Pink, 2006).

This article is focused on definitions of traditional Western concepts of creativity, but the topic is of growing concern among educational theorists and researchers around the world. In Kaufman and Sternberg's *International Handbook of Creativity* (2006), descriptions and functions of creativity in research from at least 15 countries around the world are reported. To engage in a global conversation about the importance of creativity, art educators must be prepared to define, as well as speak clearly about our aims and strategies for motivating and nurturing creative behavior and the implications of growing numbers of cross-disciplinary intersections. Art educators are endowed with a rich history and passion for the value of creativity that seems to have been lost in the past two decades and must again be embraced in our ever-changing global contexts. Our profession and our students will benefit from a renewed focus on creativity and innovation, as we offer greater clarity of meanings, processes, and purposes.

Melody K. Milbrandt is Professor of Art Education at Georgia State University. E-mail: artmkm@langate.gsu.edu

Lanny Milbrandt is Professor Emeritus and former Dean, College of the Arts, Valdosta State University. E-mail: lmlbrandt@emailink.net

REFERENCES


